“Atom-mini” Keychain Geiger Radiation Detector. User’s manual.

Thank you for purchasing “Atom-mini”.
Please read these instructions before use and keep them for future references.

Overview.

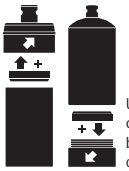
“Atom-mini” is a tiny keychain radiation detector that alarms when exposes to dangerous nuclear radiation levels. Small size of the product and long battery life lets you keep it always switched on. The approximate radiation dose rate is indicated by number of beeps in series. “Atom-mini” is sensitive to gamma and high-energy beta radiation.

Technical characteristics.

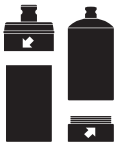
Range of evaluated exposure rate 0.5	2000 uSv/h
Energy range of detected gamma radiation	50 Kev – 3 Mev
Energy range of detected beta radiation	1 – 10 Mev
Power supply	3V CR1620 lithium battery
Response time at 1 uSv/h dose rate	less than 30 s
Response time at 10 uSv/h dose rate	less than 5 s
Battery lifetime under normal environmental conditions and dose rate less than 0.2 uSv/h	more than 180 days
Operating temperature range	-20...+60° C (-4...+140° F)
Overall dimensions	21 x 56 mm (0.82 x 2.2 in)

Getting started.

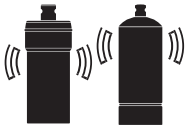
Install one CR1620 lithium battery as shown in the picture. Observe polarity. If the battery is installed correctly you will hear a long beep in 5-10 seconds. If not – please check the battery or replace it with a new one. “Atom-mini” is ready to go!



Unscrew the battery cover. Put CR1620 battery into the device observing polarity.

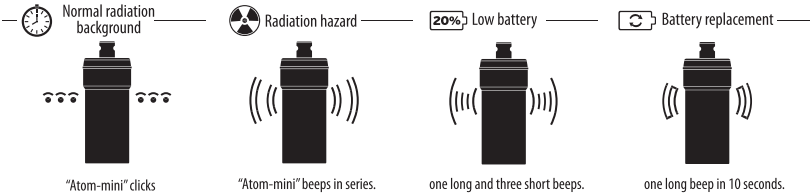


Screw the battery cover firmly.



You will hear a long beep in 10 seconds.

You will hear very quiet clicks every 2 seconds under normal radiation background. It means that “Atom-mini” works properly and radiation level is lower than 0.5 uSv/h.



If radiation level increases "Atom-mini" will alarm about it with series of beeps. This simple table will help you to approximate actual dose rate and safe exposition time. Calculations of safe exposition time are based on 5 mSv annual exposition dose which is declared as absolutely safe by World Health Organization.

Number of beeps in series	*Dose rate, uSv/h*	*Safe exposition time*
1	0.5 – 2	More than 100 days
2	2 – 10	20 – 100 days
3	10 – 50	4 – 20 days
4	50 – 2000	2.5 hours – 4 days
5	More than 2000	Less than 2.5 hours

When battery charge reaches low level "Atom-mini" will indicate it with one long and three short beeps every 30 minutes. Substituting the battery with a new one is highly recommended. It is also recommended to have an extra battery when visiting potentially radiation-hazardous areas.

Safety precautions.

Please, follow these simple instructions to keep your "Atom-mini" in perfect condition for a long time::

- Use only recommended type of battery, observe polarity.
- Avoid getting water or liquids inside "Atom-mini".
- Don't expose "Atom-mini" to heat in excess of 60° C (140° F)

Delivery set:

"Atom-mini"
This manual
CR1620 3V lithium battery
Carton box

Manufacturer's guarantee.

Youratom.com warrants "Atom-mini" against defects in materials and workmanship under normal use for one year period from the date of retail purchase. Battery life highly depends on conditions of use and not covered by warranty. Defective "Atom-mini" is subject to replace.